

**ABSTRACT OF THE DISCLOSURE**

A system, apparatus, and method for calibrating the reticle of a lithographic system is presented herein. The method includes imaging a reticle through a lithographic system, measuring a set of height offsets based on the imaged reticle and decomposing the set of measured height offsets in accordance with a plurality of distortional factors. The invention further comprises determining the reticle stage deformation attributes based on the distortional factors and the reticle deformation attributes, and then calibrating the reticle stage based on the reticle stage deformation attributes.